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**First counts, 1991 Census: a comment
on Aboriginal and Torres Strait Islander
population growth**

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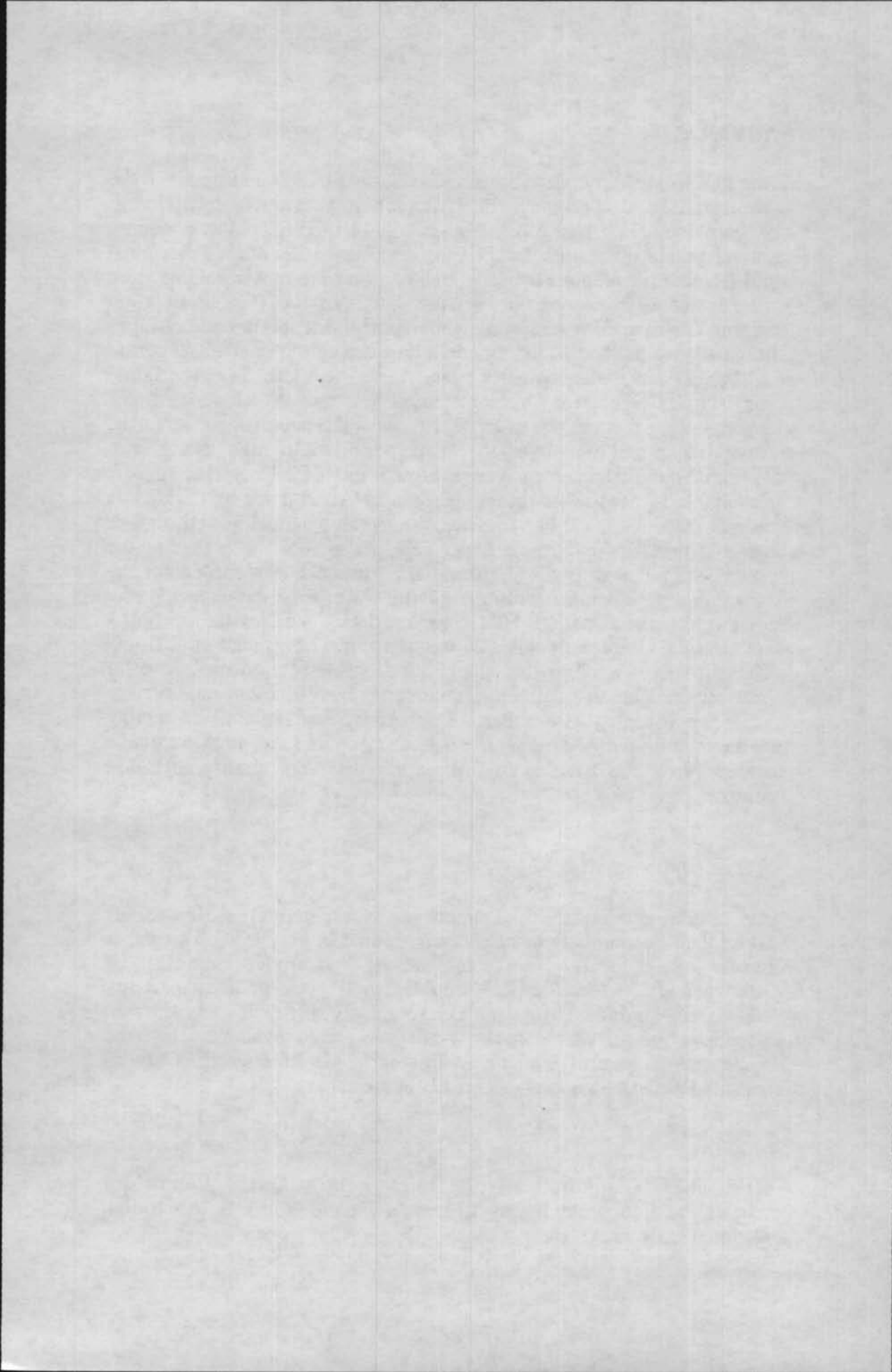
ABSTRACT

Due to a lack of accurate data on the size, distribution and trends in the Aboriginal and Torres Strait Islander populations in different geographic regions, past census data cannot be used for policy planning, administration or other uses. Data on the sex distribution of the Aboriginal and Islander populations by State and Territory are now available from the first count (released on 30 April 1992) of the 1991 Population Census. This paper examines the geographical distribution and changes in the Aboriginal and Islander populations during the intercensal period of 1986-91 and makes an early evaluation of the data. The Aboriginal and Islander populations have increased at a rate of 2.4 per cent per annum during this period, which is 1.6 times the rate of increase of the Australian population over the same period. Although the overall Aboriginal and Islander intercensal growth rate of 2.4 per cent appears reasonable to accept, its disaggregation by Aboriginals and Islanders reveals data problems. For instance, the average annual growth rate of the Aboriginal population is 2 per cent per annum while that of the Islander population is 5.6 per cent. The growth rate recorded for the Aboriginal population is only marginally lower than the expected rate for the intercensal period. Other characteristics, such as the sex ratio, are also consistent with expected trends for the Aboriginal population. The extremely high growth rate and questionable sex ratio recorded for Islanders indicate that data on Islanders may be of dubious quality. The paper proposes that ABS undertake a thorough evaluation of the quality of the data on the Aboriginal and Islander populations, so that suitable measures can be adopted to further improve data quality in future censuses.

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Accurate knowledge of the pattern of population distribution and growth in various geographic areas of a country provides valuable insights into future population distribution and growth. Thus, the assessment of population size and its geographic distribution is essential for administrative and policy planning, particularly at the sub-national level. These data come from the regular population censuses. Australian population censuses began collecting detailed data on the Aboriginal and Torres Strait Islander¹ populations in 1971. However, these data are incomplete in coverage and have rarely been analysed. Five series of population censuses have been carried out in Australia since 1971. Although data on the Aboriginal population are available from these censuses, which are carried out at five-yearly intervals, there are difficulties in using these data for assessing population trends. This is a particular problem when assessing population trends at the sub-national level (Altman and Gaminiratne 1992).

The major problem encountered when analysing and interpreting Aboriginal and Islander population data is inconsistency in the census counts (Choi and Gray 1975; Gray and Tesfaghiorghis 1991). This is due to coverage problems, as outlined by the National Population Inquiry (1975) and Broom and Jones (1973), and the rising propensity of persons of Aboriginal and Islander origin to identify as such (Smith 1980; Australian Bureau of Statistics (ABS) 1989a). An accurate measurement of past population trends at the sub-national level, using past census data, is therefore difficult to obtain. Despite some evidence of net overall underenumeration (ABS 1989a), the coverage of the Aboriginal and Islander populations by the 1986 Census appears to be better than in past censuses. The 1991 Census data will make it possible to establish a more reliable and up-to-date database on the Aboriginal and Islander population. It is anticipated that this database can be used to assess more accurately present levels and past trends, and more confidently predict the future size and growth of the Aboriginal and Islander populations (Altman and Gaminiratne 1992).

Some basic population data on preliminary counts from the 1991 Census are now published for the States and Territories (ABS 1992). The only detailed data currently available on the Aboriginal and Islander populations are on sex distribution by State and Territory. These data permit analysis of the contemporary geographical distribution and growth of the Aboriginal and Islander populations at the State and Territory level between 1986 and 1991. However, it must be understood that the data are only provisional, as would be expected from a preliminary count of the Census.² This paper examines the pattern of spatial distribution of the Aboriginal and Torres Strait Islander populations in the States and Territories and assesses changes during the intercensal period 1986-91. Broad trends in the growth of the Aboriginal and Islander populations

and their variation by State and Territory are discussed, and brief comments on the 1991 Census data are made.

The data presented in the paper on the total population and the Aboriginal and Torres Strait Islander populations are based on *de facto* enumeration. This means that the data refer to the population who were enumerated according to the particular geographic area where they were present on census day (or night), as opposed to the place of usual residence (*de jure*). For large geographic areas such as the States and Territories, the relative levels and trends in population distribution and growth rates derived from *de facto* counts may not be very different from those based on the *de jure* counts.

Population size and growth, 1986-91: an overview

Between the 1986 and 1991 Censuses the enumerated population of Aboriginal and Torres Strait Islander origin increased by 29,688, from 227,645 to 257,333 (ABS 1992). This is an intercensal increase of 13 per cent. The total Australian population, however, increased from 15.6 million in 1986 to 16.8 million in 1991, an 8 per cent increase (see Table 1). The 1991 Census figures suggest that the Aboriginal and Islander population grew at an average rate of 2.4 per cent per annum. This rate is about 1.6 times the growth rate of the total Australian population during

Table 1. Distribution of the total Australian population and the Aboriginal and Islander populations by State and Territory 1986-91.

State/Territory	Total population		Aborigines and Islanders		Relative share	
	1986	1991	1986	1991	1986	1991
NSW	5,401,881	5,731,926	59,011	68,941	1.1	1.2
Vic.	4,019,478	4,243,719	12,611	16,570	0.3	0.4
Qld	2,587,315	2,978,617	61,268	67,012	2.4	2.2
SA	1,345,945	1,400,656	14,291	16,020	1.1	1.1
WA	1,406,929	1,586,393	37,789	40,002	2.7	2.5
Tas.	436,353	452,847	6,716	8,683	1.5	1.9
NT	154,848	175,253	34,739	38,337	22.4	21.9
ACT	249,407	280,085	1,220	1,768	0.5	0.6
Total	15,602,156	16,849,496	227,645	257,333	1.5	1.5

Source: ABS (1992).

the same intercensal period. The numerical increase of the Aboriginal and Islander population during the intercensal period was 29,688. This represents only 2.4 per cent of the intercensal increase of the total population (1.2 million). As a result of the high natural increase among the non-Aboriginal population, supplemented by immigration from overseas, the share of the Aboriginal and Islander population in the total population (1.5 per cent) did not increase. The relative share of the Aboriginal and Islander population has changed only slightly in the States and Territories. In the Northern Territory, for example, the Aboriginal and Islander share of the population declined from 22.4 in 1986 to 21.9 per cent in 1991. Similar declines in the Aboriginal and Islander proportion of the *de facto* count were also recorded in Western Australia and Queensland (see Table 1).

Impressionistic view of the data

Before examining the population distribution and growth observed between the two censuses, it is necessary to gain a broad impression of the database, bearing in mind the limitations of the information available. One way of examining the validity of the population counts is to derive population estimates based on the knowledge available on the components of population, migration and natural increase. International migration data are not tabulated separately for Aborigines and Islanders, but the effect of international movement is not a significant factor in the change in the Aboriginal and Islander population (Gaminiratne and Tesfaghiorghis 1992). Although Australia has a well developed civil registration system that provides reliable data on births and deaths, such data are not separately available for the Aboriginal and Islander populations. In the absence of detailed information on Aboriginal births and deaths, one must depend on indirect estimates derived from sources such as population censuses. Detailed population projections at the State level, based on the best possible estimates of the fertility and mortality of the Aboriginal and Islander populations and the census-based estimates of internal migration, are available from Gray (1988). There is also a revised projection of the total Aboriginal and Islander population for the whole country (Gray and Tesfaghiorghis 1991). These provide a suitable basis for comparison.

According to Gray and Tesfaghiorghis (1991) the total indigenous population for the year 1991 is projected to be 251,800. The 1991 Census figure is about 2.2 per cent (or 5,533 persons) higher than the projected figure. There is a close agreement between the projected figures and the census count for some States such as the Northern Territory, South Australia and to a lesser degree Queensland (Table 2). But in the census counts for Victoria (including Tasmania) and New South Wales

(including the Australian Capital Territory) differences are substantially higher; 19.6 per cent higher in Victoria and 5.5 per cent higher in New

Table 2. Projected number of Aborigines and Torres Strait Islanders compared with the preliminary 1991 Census counts by State and Territory.

State/Territory	Census 1991	Projection mid-1991	Difference from projection	
			number	per cent
NSW and ACT	70,709	67,020	3,689	5.5
Vic. and Tas.	25,253	21,110	4,143	19.6
Qld	67,012	67,610	-798	-1.2
SA	16,020	15,830	190	1.2
WA	40,002	41,720	-1,718	-4.1
NT	38,337	38,310	27	0.1
Total	257,333	251,800	5,533	2.2

The 1991 Census was carried out on 6 August 1991. These figures are based on a projection by Gray and Tesfaghiorghis (1991) for the total Aboriginal and Islander population. The State figures given in the table have been derived by adjusting Gray's preliminary projections made for the States and Territories (Gray 1988) to the total figures available from Gray and Tesfaghiorghis (1991).

South Wales (Table 2). Much of the difference between the projected figures and the census count observed in the States could be due to differences in the migration component, rather than the difference in fertility and mortality patterns. These differences could also be due to enumeration defects in the two censuses. For instance, Western Australia's Aboriginal (including Islanders) population count is 1,718 persons lower than the projected figures (Table 2) and 2,822 persons lower than even the low variant of the projections³ made by the Western Australian Department of Planning and Urban Development (1992). Internal migration data derived from the 1986 Census (Gray 1989) on the Aboriginal and Islander population do not show a pattern of net out-migration of Aborigines and Islanders from Western Australia. One suspects that perhaps some underenumeration of the Aboriginal population in Western Australia took place in the 1991 Census, as Islanders show a slightly higher growth rate.

Sex composition of the Aboriginal and Torres Strait Islander populations

In the absence of substantial and selective migration, the sex composition of a population is determined by the fertility and mortality patterns relating to that population. The sex composition of a population can also be used to evaluate census data. In general, there are more males than females at birth; about 103 male births per 100 female births. This male advantage normally disappears with age, because of the higher rate of male mortality. For decades, Aborigines and Islanders showed an excess of males in their total population. For instance, in 1947 the Aboriginal and Islander population showed a sex ratio (number of males per 100 females) of 110. Over the years the sex ratio has declined because of higher rates of male mortality and the ageing of the population. The 1986 Census identified 112,655 persons as males and 114,990 as females of Aboriginal and Torres Strait Islander origin, yielding a sex ratio of 97.9 males per 100 females. If the trends in mortality continue, the sex ratio of the Aboriginal and Islander population is expected to fall. On this basis, the expected sex ratio of the total indigenous population, based on projected population figures (Gray and Tesfaghiorghis 1991), is 97.8 males per 100 females for the year 1991. But preliminary 1991 Census data (Table 3) show that there was no change in the sex ratios during the intercensal period.

Table 3. Sex composition of the Aboriginal and Islander populations, 1986-91.

Population	Males		Females		Sex ratio	
	1986	1991	1986	1991	1986	1991
Aborigines and Islanders	112,655	127,382	114,990	129,961	98.0	98.0
Aborigines	102,043	113,164	104,061	115,545	98.1	97.9
Islanders	10,612	14,218	10,929	14,406	97.1	98.7

Source: ABS (1992).

For the Aboriginal population alone, however, the sex ratio has moved in the expected direction; it declined from 98.1 (males per 100 females) in 1986 to 97.9 in 1991. By contrast, the sex ratio of Islanders has increased from 97.1 to 98.7 during the same period. In the absence of a specific reason for the increase in the sex ratio of Islanders, this can be seen as indicating a data problem in the Islander population count.

Aboriginal and Islander population growth compared

Some doubts about the 1991 Census counts can be raised if intercensal growth and changes in population distribution in the States and Territories are examined separately for the Aboriginal and Islander populations. During the intercensal period the Aboriginal population increased at an average rate of 2 per cent per annum; the rate of growth recorded for Torres Strait Islanders (5.6 per cent) was 2.8 times higher than the Aboriginal rate. By any standard, the observed intercensal growth rate of 5.6 per cent per annum for the Torres Strait Islanders is extraordinarily high.

Table 4. Distribution of Aboriginal and Torres Strait Islander populations by State and Territory 1986-91.

State/Territory	Aborigines		Islanders		Total	
	1986	1991	1986	1991	1986	1991
Numerical distribution						
NSW	55,672	62,232	3,339	6,709	59,011	68,941
Vic.	10,740	12,724	1,871	3,846	12,611	16,570
Qld	48,098	53,661	13,170	13,351	61,268	67,012
SA	13,298	14,171	993	1,849	14,291	16,020
WA	37,110	39,080	679	922	37,789	40,002
Tas.	5,829	7,443	887	1,240	6,716	8,683
NT	34,197	37,755	542	582	34,739	38,337
ACT	1,160	1,643	60	125	1,220	1,768
Total	206,104	228,709	21,541	28,624	227,645	257,333
Percentage distribution						
NSW	27.0	27.2	15.5	23.4	25.9	26.8
Vic.	5.2	5.6	8.7	13.4	5.5	6.4
Qld	23.3	23.5	61.1	46.6	26.9	26.0
SA	6.5	6.2	4.6	6.5	6.3	6.2
WA	18.0	17.1	3.2	3.2	16.6	15.5
Tas.	2.8	3.3	4.1	4.3	3.0	3.4
NT	16.6	16.5	2.5	2.0	15.3	14.9
ACT	0.6	0.7	0.3	0.4	0.5	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: ABS (1987, 1992).

It is also of interest to note that of the overall intercensal growth of the Aboriginal and Islander population (29,688) nearly a quarter (7,083) was

contributed by Islanders (Table 6) who formed only 11.1 per cent of the total Aboriginal and Islander population in 1991. About half of the growth of the Aboriginal and Islander population observed in the intercensal period in Victoria and South Australia and about one-third in New South Wales has been due to the increase in the Islander population during the period.

Table 5. Intercensal growth of Aboriginal and Torres Strait Islander populations by State and Territory 1986-91.

	Percentage change			Rate per year		
	Aboriginal	Islander	Total	Aboriginal	Islander	Total
NSW	11.8	100.9	16.8	2.2	13.7	3.0
Vic.	18.5	105.6	31.4	3.3	14.1	5.4
Qld	11.6	1.4	9.4	2.1	0.3	1.8
SA	6.6	86.2	12.1	1.2	12.2	2.2
WA	5.3	35.8	5.9	1.0	6.0	1.1
Tas.	27.7	39.8	29.3	4.8	6.6	5.0
NT	10.4	7.4	10.4	1.9	1.4	1.9
ACT	41.6	108.3	44.9	6.8	14.4	7.3
Total	11.0	32.9	13.0	2.0	5.6	2.4

Source: Table 4.

Table 6. Relative intercensal growth of the Aboriginal, Islander and total Aboriginal and Islander populations by State and Territory, 1986-91.

	Aborigines and Islanders	Intercensal increase of		Per cent share ^a
		Aborigines	Islanders	
NSW	9,930	6,560	3,370	33.9
Vic.	3,959	1,984	1,975	49.9
Qld	5,744	5,563	181	3.2
SA	1,729	873	856	49.5
WA	2,213	1,970	243	11.0
Tas.	1,967	1,614	353	17.9
NT	3,598	3,558	40	1.1
ACT	548	483	65	11.9
Total	29,688	22,605	7,083	23.9

a. Proportional Islander to total Aboriginal and Islander intercensal change.

The high intercensal growth rate of the Islander population could be because: coverage of the Islanders in the 1986 Census was poor and the 1991 Census was able to enumerate them more accurately; changing attitudes amongst Aborigines and Islanders concerning self-identification, as was observed in past censuses (Smith 1980; ABS 1989a), have been more pronounced among Islanders in the 1991 Census; or that some communities have misunderstood the racial origin question and misidentified themselves as Aborigines and Islanders, as has been observed in past censuses. Jones (1982: 131) draws attention to such a possibility in the 1976 Census:

The main source of error in the racial origin question seems to be that in Sydney and Melbourne especially some overseas-born persons from non-European countries described themselves as 'Aboriginal', since they did not see themselves as 'European'. Note that the census question does not say Australian Aboriginal, but simply Aboriginal.

Similar data problems were observed in 1986 in Tasmania, where some persons of (or who had lived for some time in) the Bass Strait Islands misidentified themselves in the Census as Torres Strait Islanders (ABS 1989a). This factor was responsible for a large part of the apparent increase in the Torres Strait Islander population between the 1981 and 1986 Censuses in Tasmania.

Although an overall intercensal growth rate of 2 per cent seems reasonably accurate for the Aboriginal population during that period, there may still have been enumeration problems in the States and Territories. For instance, part of the increase in the Aboriginal population observed in New South Wales and Victoria may be a result of changing self-identification. As was established in 1986, the population change due to increased numbers of those individually self-identifying as Aboriginal or Islander has been more common in urban than in rural areas (ABS 1989a). Similarly, part of the low growth rate observed in Western Australia may be a result of possible underenumeration. Without detailed evaluation of the Aboriginal and Islander counts it is difficult to establish the relative accuracy of the population counts. It is reasonable to assume that substantial data problems are more likely in the Torres Strait Islander count than in the Aboriginal count. Therefore, it is necessary to discuss intercensal population distribution and growth separately for the two population groups.

Population distribution in the States and Territories

In 1986, about 56.1 per cent of the population of Aboriginal origin was distributed in the three eastern States of New South Wales, Victoria and Queensland, and the Australian Capital Territory. In 1991, this

proportion increased by 0.9 percentage points. Relative gains in the share of the Aboriginal population in these States are small. However, they are still significant, as they show a possible population shift between the States and Territories. The Aboriginal population of Victoria, New South Wales and the Australian Capital Territory grew at an average rate of 2.4 per cent per annum during the intercensal period. The growth rate was highest in the Australian Capital Territory (6.8 per cent per annum), which is more than three times the overall intercensal growth rate for the Aboriginal population (Table 5). Growth rates for Victoria and New South Wales were also higher than the overall average (2 per cent). If the data are accurate, these growth rates show a possible interstate movement of people during the intercensal period in favour of the urbanised eastern States. Gray (1989) observed a small net out-migration of Aboriginal and Islander people from Victoria and New South Wales between 1981 and 1986. The net impact of this small-scale interstate movement appears to have been merely that of maintaining the status quo during that period. The population increases in the eastern States observed in the 1986-91 period may, in fact, point to the opposite trend, a possible increase in the volume of migration to urban areas. The Aboriginal share of the population declined slightly in South Australia, Western Australia and in the Northern Territory. The decline was somewhat greater in Western Australia (1.1 per cent).

Intercensal changes in population distribution are much more marked for Torres Strait Islanders than for Aborigines. In 1986, more than three-fifths of the Torres Strait Islander population was concentrated in Queensland (61 per cent) and New South Wales (16 per cent). The remaining population distribution ranged from 0.3 per cent in the Australian Capital Territory to 9 per cent in Victoria. In 1991, the share of Torres Strait Islanders in Queensland declined substantially (by 15 per cent), while New South Wales and Victoria recorded a substantial increase (Table 4). The Northern Territory is the only region where the share of the Islander population declined during that period.

The rapidity of the population increases in the States and Territories recorded for Islanders are more clearly displayed in their intercensal growth rates (Table 5). Percentage increases are high, largely because of the very small data baseline. Yet the observed increases are high. The highest intercensal growth rate (14.4 per cent per annum) was recorded in the Australian Capital Territory, where the persons identified as being of Islander origin more than doubled: from 65 in 1986 to 125 in 1991. High average annual growth rates are also reported for Victoria (14.1 per cent), New South Wales (13.1 per cent) and South Australia (12.2 per cent). The rapid annual growth rate of the Islander population in almost all States cannot be explained by natural increase or migration. Clearly,

growth rates of this magnitude represent defects in the census counts, changed self-identification, or both.

To validate the census counts, an expected number of Aboriginal and Torres Strait Islanders has been projected for the two population groups. The survival ratios used for the projection were based on Gray's (1990a) estimated age-sex specific mortality rates for the 1981-86 period. Births in the five-year period were estimated using the available age-specific fertility rates derived by indirect methods (Gray 1990b). These estimates of mortality and fertility are, however, not available for Aborigines and Islanders separately. For this projection, mortality and fertility rates derived for the total Aboriginal and Islander population were assumed to be the same for both population groups.⁴ Mortality and fertility rates observed for the 1981-86 period were assumed to be constant over that period. The effect of international migration on the Aboriginal and Islander populations was assumed to be insignificant. Five-year age-sex distributions observed in the 1986 Census (unadjusted) were used as the base population. The results of the projection, presented in Table 7, showed that the census count for the Aboriginal population was lower than the projected figures by about 2,000 persons, while the Islander population count was about 4,800 higher than the projected figures, if they experienced mortality and fertility patterns similar to those prevailing in the 1981-86 period.

Table 7. Projected and observed Aboriginal and Torres Strait Islander populations in 1991.

Populations	Observed	Projected ^a	Difference
Aboriginal	228,709	230,780	-2,071
Islander	28,624	23,820	4,804
Aboriginal and Islander	257,333	254,600	-2,733

a. Adjusted for Census data.

The difference between the observed and the projected population figures for the Aboriginal population is largely a result of the constant fertility assumption (unchanged fertility from the 1981-86 level) used in the projection. Assuming that there was no significant undercount of the Aboriginal population, the difference in the order of 2,000 persons represents about 5 per cent decline in fertility during the intercensal period (i.e. equivalent to a drop in the total fertility rate from 3.1 to about 2.8 from 1986-91 to 1986-91). The great difference between the

census count and the projection for Islanders cannot be explained in terms of natural increase. It makes no demographic sense to assume that during the reference period there has been a significant population increase in the order of 5.6 per cent per annum.

Discussion

This analysis examined the intercensal growth and distribution of the Aboriginal and Torres Strait Islander populations, using data available from the 1986 Census and from the first count of the 1991 Census. The 1991 Census count for Aborigines and Islanders was compared with projected population figures; overall count of the Aboriginal and Islander population was 2.2 per cent higher than expected (Table 2). It was also shown that the intercensal growth rate of the Torres Strait Islander population was not only much higher than that of the total Australian population, but also almost three times the Aboriginal growth rate during the same period. The sex ratios derived from 1991 Census counts also showed anomalies in the Torres Strait Islander counts. The States of Victoria, New South Wales, Tasmania and the Australian Capital Territory showed extremely high Aboriginal and Islander intercensal growth rates. In the same States the share of Islanders in the total intercensal increase was substantial. In these States the Aboriginal population also showed somewhat high growth rates, while in remote States relatively low growth rates were observed. The increases in the Aboriginal population in the eastern States and low growth rates in the remote States tends to suggest a likely pattern of interstate migration to the urbanised eastern States. If this is so, the migration pattern is contrary to that observed in the past censuses. However, some enumeration problems in certain areas cannot be completely ruled out.

Several explanations for the large increases in the Islander counts were briefly discussed. First, there may have been a substantial undercount in the 1986 Census and improved coverage in the 1991 Census. The Post Enumeration Survey (PES), carried out to validate the 1986 Census counts, showed evidence of some undercount among the indigenous population groups (ABS 1989a), but because of its small sample size it could not provide a meaningful assessment of this small population. The PES cannot give any indication about the relative coverage of the Islander population. There is no reason to suspect that there was a greater undercount of the Islander population than of the Aboriginal population at the 1986 Census. Second, it may be that Islanders are still showing a propensity to self-identify as indigenous. The question of population increase due to increasing propensity for self-enumeration was discussed when it surfaced in relation to the censuses carried out in 1976 and 1986 (National Population Inquiry 1975; Smith 1980). If this factor had any

effect on the population size, it may have reached its peak at the time of the 1986 Census, and one would expect the effects of this factor to be less significant in the 1991 Census. Although there may have been some increases in population due to increased self-identification or ethnic immigration (Smith 1980), this alone cannot be responsible for such a large numerical increase in the Islander population. Third, it is possible, due to a misunderstanding of the census question or otherwise, that some persons of other racial groups misreported themselves as being of Torres Strait Islander origin. Judging from past experience and the census question wordings, one might consider this factor to be a likely reason for the higher Islander counts. Some of these cases of misidentification of persons can probably be detected at the editing stage of the census and, if so, the final Islander count will be lower than that of the first preliminary count, although the degree of difference in the counts is not yet known.

It appears that the efforts made by ABS in the last two decades to ensure better coverage of indigenous Australians have been successful in relation to the Aboriginal population. Perhaps it will take a longer period to achieve a satisfactory coverage of Islanders. Remedial measures may need to be taken in future censuses in order to assess the trends in the Aboriginal and Islander populations. A comprehensive evaluation of the counts of the Aboriginal and Islander populations is required. It is important that ABS consider modifying the wording of the racial origin question in future censuses by defining the term 'Torres Strait Islander', in a more specific manner so that possible confusion or mis-identification is avoided. A field study, on a sample of Collection Districts, of the majority of persons who reported that they were of Islander origin in the 1991 Census could be carried out to determine whether any such error existed in the 1991 Census. A study could, among other things, give useful insights into the wording of the racial origin question on census forms; such a study could be restricted to some urban areas of Victoria, New South Wales and Tasmania, where the increases in the Islander population are particularly marked.

The 1986 Census included an additional question on ancestry. Although responses to this question were found to be incomplete and had limited analytical value (ABS 1989b), a similar item of information, if well defined (like Australian Aboriginal), may be useful for cross-checking the racial origin of a person.

The data used in the analysis relate to *de facto* enumeration. Culturally, Aboriginal and Islander populations are highly mobile. It may be useful to examine the population data based on the *de jure* population counts in the major geographic areas. If the two sets of data differ significantly, then major socioeconomic and demographic data should be made available according to the place of usual residence as well. Currently,

available detailed statistical data treat the Aboriginal and Islander populations as one group. There are growing political and policy pressures for separate data on Islanders (Altman 1992; Arthur 1992). The differential growth patterns observed between Aboriginal and Torres Strait Islander people, whatever the cause may be, also justify collecting detailed data separately for the two population groups.

Although knowledge of population distribution and change over time in geographic areas is useful for the identification of relative growth and concentration in specific areas, knowledge of the changes in population composition in such areas is necessary as a basis for policy formulation and to assess its impact. The question then arises: are the 1991 Census counts on the Aboriginal and Islander populations of good enough quality to be used for policy planning and other administrative purposes? A direct answer to this question is not possible at this stage. A more meaningful assessment of population trends can be made only when detailed data on age-sex composition, interstate and intrastate migration, and socioeconomic characteristics of the population in the States and Territories are available. As a tentative conclusion, it can be stated that the data on the Aboriginal population, despite the possibility of undercounting in some remote regions, are relatively accurate, and can be used with reasonable confidence for policy planning purposes at the State level. When final disaggregated data, for instance at the regional council level, are available early in 1993, it will be possible to be more conclusive about the extent of coverage. The Islander population count, in its present form, should be used with caution and must be regarded as being of limited utility for planning and projection.

Notes

1. Unless otherwise stated, the term Islanders throughout this paper refers to Torres Strait Islanders.
2. Responses to most of the census questions have been processed using an Optical Mark Recognition (OMR) machine. OMR is a time-efficient system that eliminates many of the data processing errors associated with normal keyboard data entry systems. First counts produced by ABS are based on the OMR, and ABS warns that the final data can be different from that of the first counts, as there may be errors due to misreading some entries in the schedules by the OMR. However, it appears that the data produced in the first count have been subjected to a basic edit program and hence the expected difference will be slight.
3. The projected population for Western Australia according to the three variants is as follows: low variant 42,824; medium variant 43,680; and high variant 44,554.
4. The assumption that the mortality and fertility of Aboriginals and Islanders are the same is perhaps unrealistic. In fact, Islander fertility appears to be lower than that of the Aboriginal; the child/woman ratio for the Aboriginal population was 0.558 (per woman in the 15-44 age group) compared to 0.528 for Islanders. Thus, the projected number of births is slightly high for Islanders. There may also be

mortality differentials between the two groups, but their impact on the total population size can be considered minimal within the five-year period.

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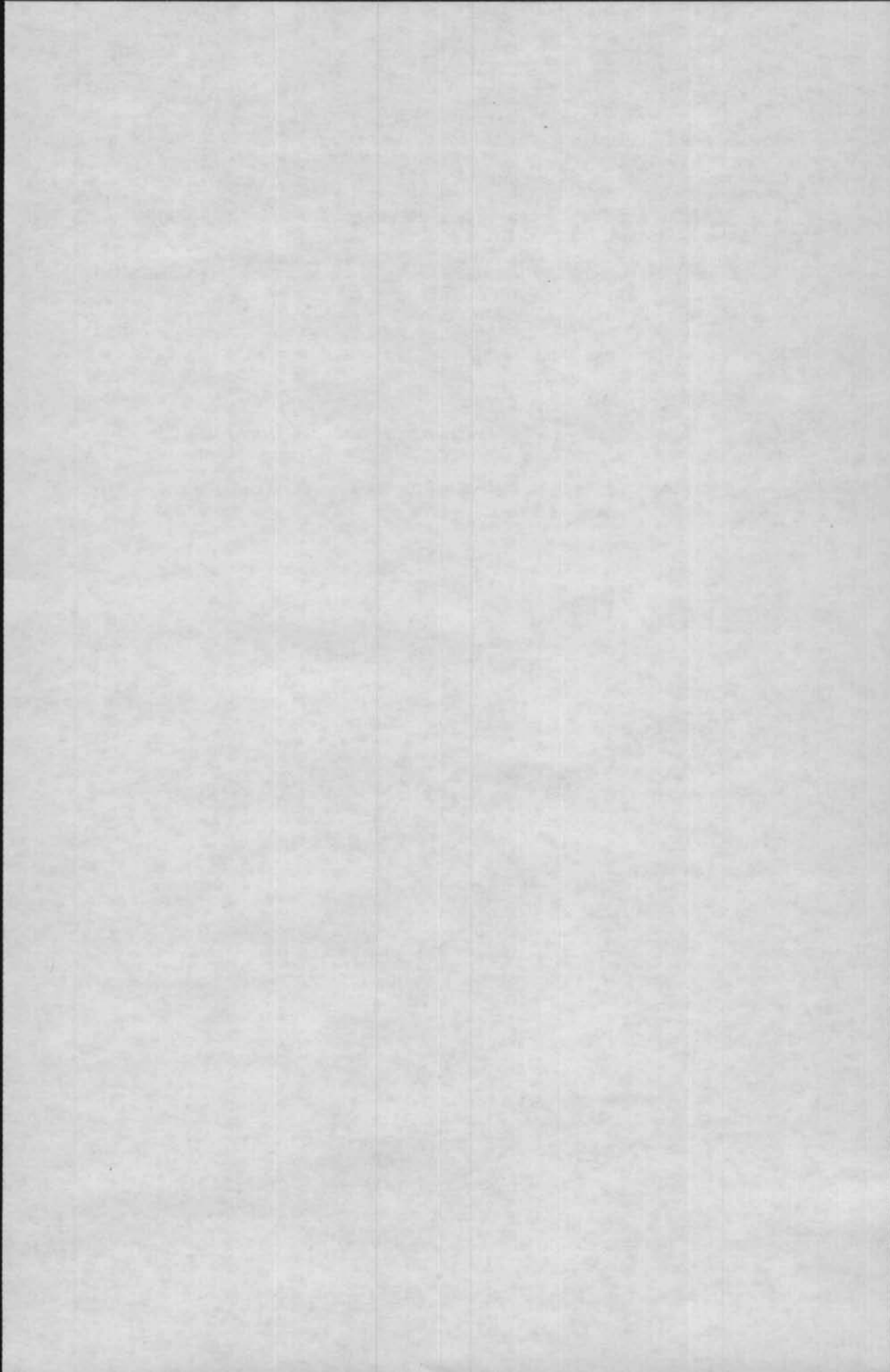
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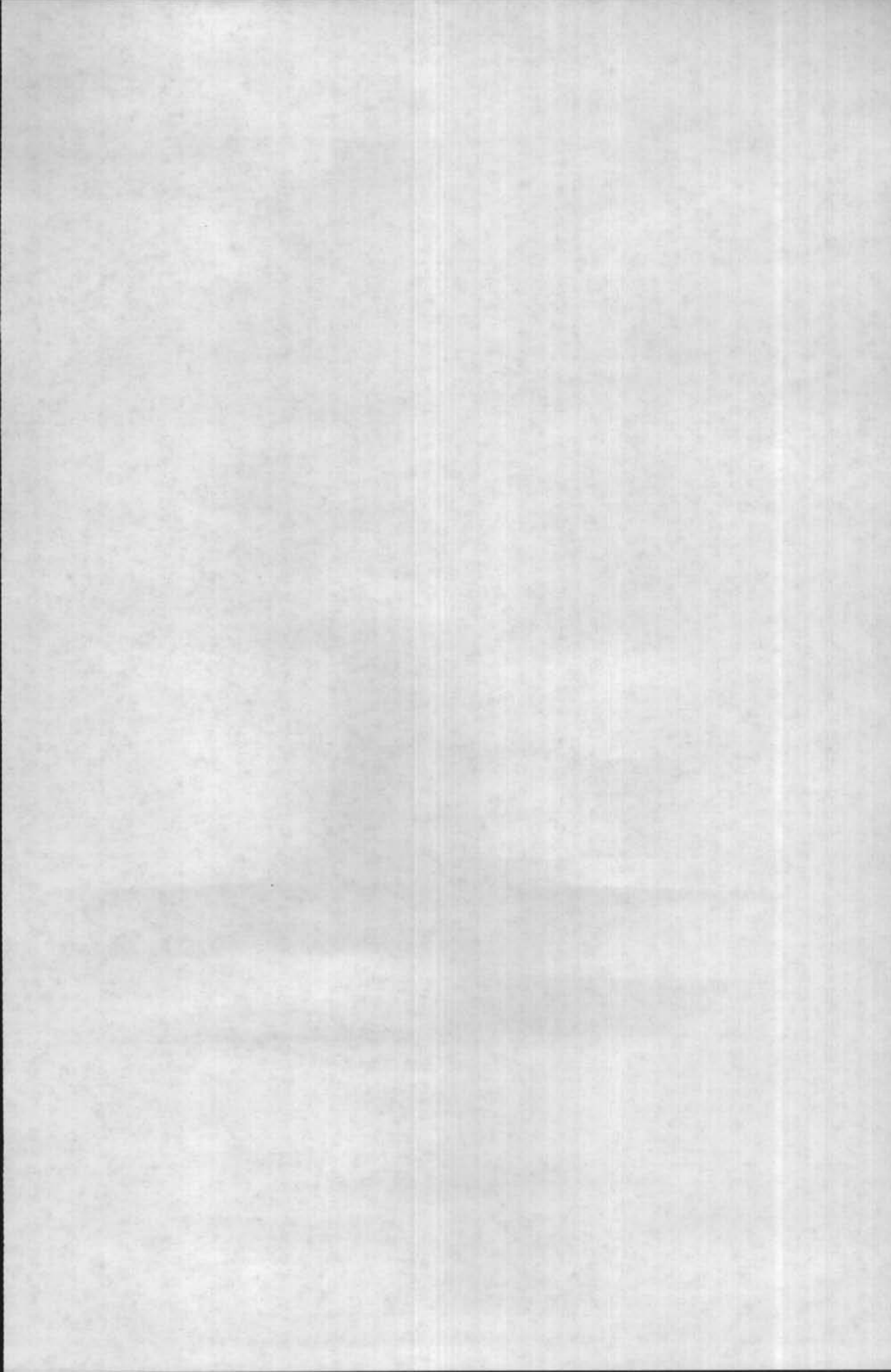
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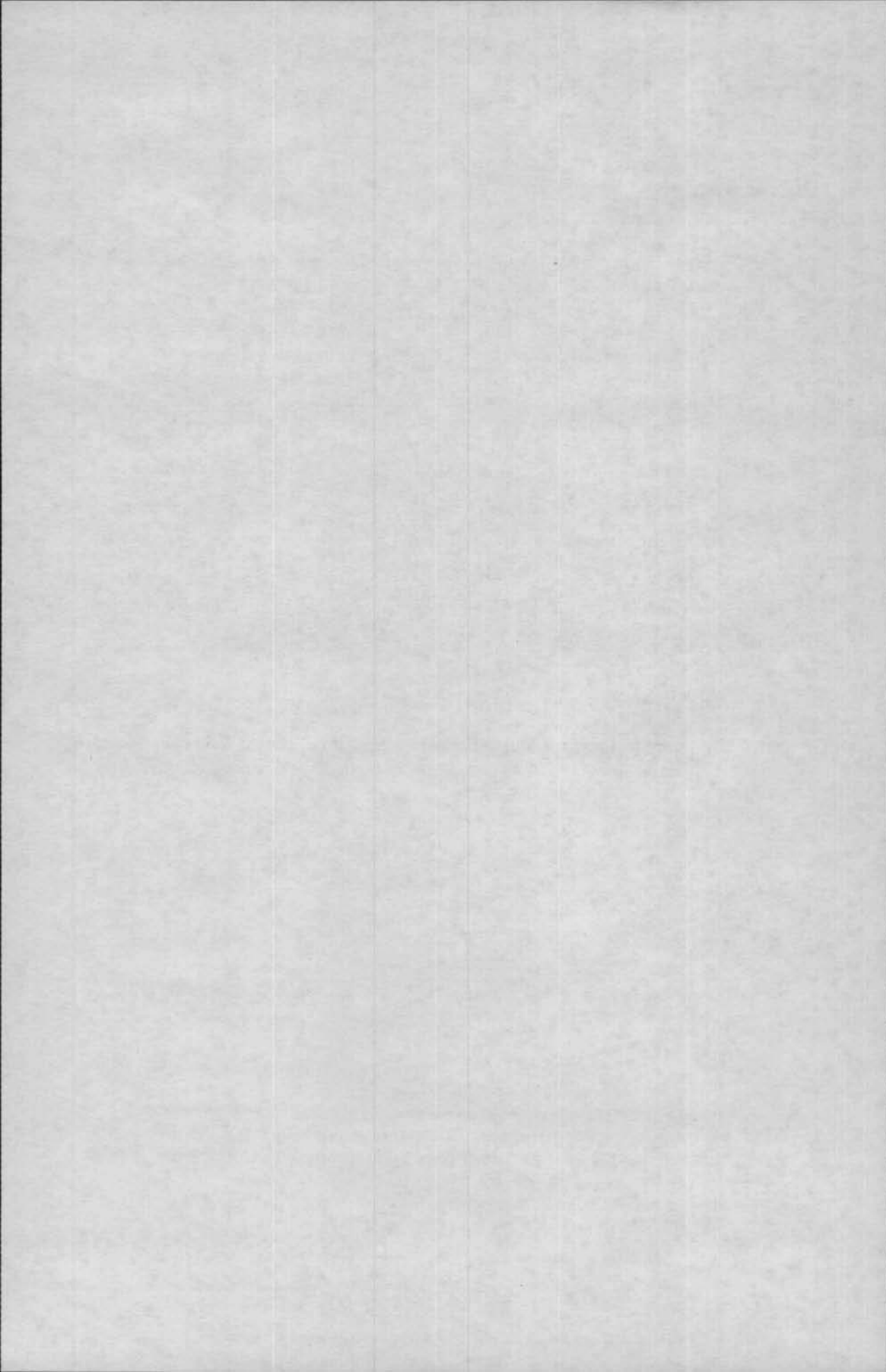
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